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# A New Species of *Simira* (Rubiaceae, Rondeletieae) from Northeastern Brazil

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**ABSTRACT.** The new species *Simira gardneriana* M. R. Barbosa & A. L. Peixoto from northeastern Brazil is described. This is the first species of *Simira* found in the "caatinga" vegetation.

*Simira* Aublet (Rubiaceae, Rondeletieae) is a neotropical genus comprising about 40 tree species, ranging from Mexico to Brazil. Although a regional treatment of *Simira* from Brazilian Amazonia was recently published (Barbosa & Peixoto, 1989), the last comprehensive treatment of the genus for Brazil was that of Schumann (1889) for *Flora Brasiliensis*. During the study of collections of Rubiaceae from northeastern Brazil, this previously undescribed species was discovered by the first author.

***Simira gardneriana*** M. R. Barbosa & A. L. Peixoto, sp. nov. TYPE: Brazil. Ceará: Campos Sales, Salitre, caatinga, 10 Feb. 1984, A. Fernandes & M. A. Figueiredo 12298 (holotype, JPB; isotype, EAC). Figure 1.

Species nova a congeneris *S. grazielae* et *S. viridiflora* dimensionibus petioli et foliorum sed etiam axillis nervorum barbatis, corolla ventricosa 6–7 lobata et staminibus numero aequali distinguitur.

Small tree 4–7 m tall, cortex gray, reddish inside; branchlets terete, grayish, rarely reddish, glabrous, with lenticels. Leaves concentrated in the apices of branchlets, oblong-lanceolate, apex short acute, slightly apiculate, base obtuse or rounded, chartaceous, glabrous, younger reddish, mature olive-green, 4.5–6 cm long, 2.5–3 cm wide; petioles slender, puberulous, 5–7 mm long; secondary veins 8–10 pairs, prominent above and beneath, intersecondary veins reticulate, with hairy domatia in the axils of the secondary veins; terminal stipules 0.8–1 cm long, narrowing toward the apex, externally puberulous at base, with one row of colleters on the internal stipule base. Inflorescences axillary, short;

thyrses 7–12-flowered, peduncles puberulous, 1.5–2 cm long; bracts foliose 2, at apex of the peduncle, membranaceous, deciduous, 1–1.5 cm long. Flowers sessile, hypanthium puberulous, 3.8–4(–5) mm long. Calyx campanulate, truncate, internally glabrous, externally glabrous, 2(–4) mm long. Corolla bell-shaped, 6–8(–9) mm long, externally glabrous, internally glabrous except at the point of filament attachment, imbricate, lobes 6–7, 3–4 outside, 3 inside, rounded, ciliolate, ca. 1 mm long, the inside smaller than the outside ones, irregularly tripartite at anthesis, then reflexed. Stamens 6–7, filaments exerted, attached ca. 1.5 mm from the corolla base, 5–5.5(–7) mm long, hirsute in basal  $\frac{2}{3}$ ; anthers apiculate, 2.5–3 mm long. Style glabrous, bifid, at anthesis ca. 7 mm long. Capsules globose, woody, with lenticels, 3.5–4.5 cm diam., 2-valved, valve bipartite, each part ca. 2.5 cm long, 1.6 cm wide, 0.35–0.4 cm thick; seeds numerous, flat, crescent-shaped, 1.8–3.5 × 0.9–1.5 cm, drying gold, wings slender.

*Simira gardneriana* occurs in the states of Bahia, Ceará, Pernambuco, and Piauí, in the caatingas dominium, where it is known as Pereiro-de-Tinta or Pereiro-Vermelho. The wood is used in buildings and fences; during the dry season this species is used as forage. This is the first reference of the genus, which is typical of humid forests, occurring in the caatinga vegetation. The caatinga is a type of vegetation that occurs in northeastern Brazil where the majority of species, under severe and long-lasting periods of drought, lose their leaves. The currently known specimens of this species occur in areas of poor sandy soil with 500–700 mm annual rainfall.

*Simira gardneriana* is very closely related to *S. grazielae* Peixoto and *S. viridiflora* (Allemão & Saldanha) Steyermark, which occur in the humid forests of eastern Brazil (Peixoto, 1981). These species

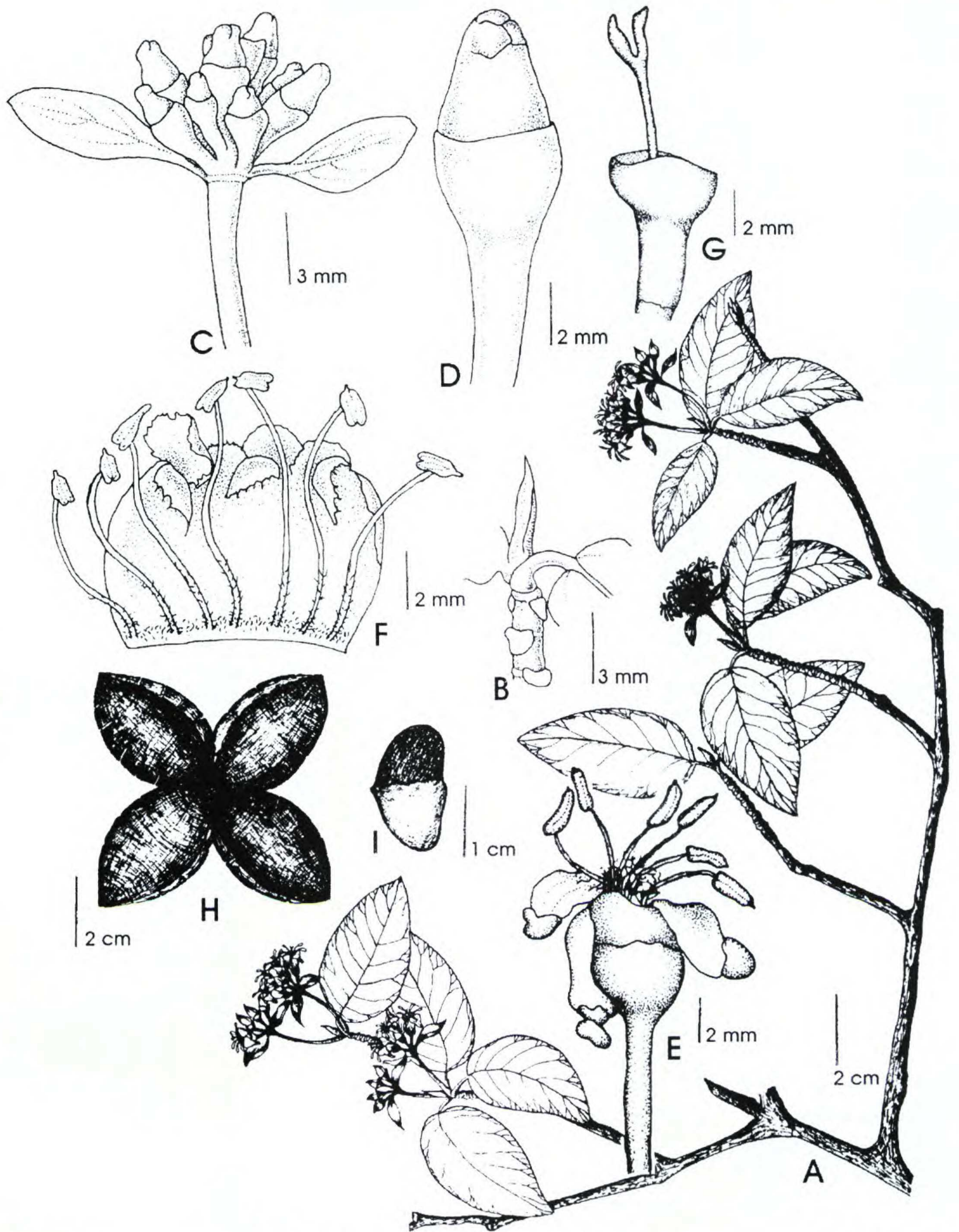


Figure 1. *Simira gardneriana* M. R. Barbosa & A. L. Peixoto. —A. Habit. —B. Terminal stipule. —C. Inflorescence. —D. Flower bud. —E. Flower. —F. Open corolla. —G. Hypanthium and style. —H. Open fruit. —I. Seed. (A–G, A. Fernandes & M. A. Figueiredo 12298; H, I, D. Andrade-Lima & M. Magalhães 52–1063.)

have in common an imbricate corolla aestivation that opens irregularly in three or two portions and capsules strongly woody, bivalved, with valve bipartite. *Simira gardneriana* differs in having short-

er petioles, hairy domatia, and higher numbers of corolla lobes and stamens (Table 1).

The name honors George Gardner, Scottish naturalist, the first collector of the species, who was

Table 1. Comparison of *Simira gardneriana*, *S. grazielae*, and *S. viridiflora*.

Characters	<i>S. gardneriana</i>	<i>S. grazielae</i>	<i>S. viridiflora</i>
Habit	Tree to 7 m	Tree to 30 m	Tree to 20 m
Blade dimension	4.5–6 × 2.5–3 cm	6–13 × 2.8–5 cm	12–42 × 3–13 cm
Domatia	Hairy	Pocket	Hairy
Petioles	5–7 mm	2 cm	1–2.2 cm
Lobes and stamens	6–7	4–5	4
Capsule dimensions	3.5–4.5 cm	6–7 cm	6–7 cm

responsible for a historical collection of plants made in northeastern Brazil from 1836 to 1841.

*Paratypes.* BRAZIL. **Bahia:** Senhor do Bonfim, 25 May 1974 (fr), *D. Andrade-Lima* 74-7665 (IPA). **Ceará:** Aiuaba, 8 Jan. 1982 (fl), *M. A. F. Gomes s.n.* (EAC 11058, UB, JPB, IPA). **Pernambuco:** Petrolina, 5 Jan. 1961 (fr), *D. Andrade-Lima* 61-3601 (IPA, JPB); 8 km NE Petrolina, caatinga arbustiva, 28 Dec. 1983 (fl), *Fotius* 3661 (IPA); próx. Serra Dois Irmãos, estr. Afrânio-Paulistana, 23 June 1952 (fr), *D. Andrade-Lima & M. Magalhães* 52-1063 (IPA); Afrânio, 20 Apr. 1971 (fr), *E. P. Heringer et al.* 200 (IPA). **Piauí:** próximo Boa Esperança, 1839 (fl), *G. Gardner* 2313 (K); Fronteiras, 17 June 1980 (fr), *S. Jordy Filho* 112 (IPA); Paulistana, 2 Dec. 1979 (fl, fr), *A. Fernandes & Del'Arco s.n.* (EAC 7508, UB); São Raimundo Nonato, 12 Dec. 1978 (fl), *A. Fernandes s.n.* (EAC 5112, UB); Serra da Capivara, 1979 (fl), *L. Emperaire* 370 (IPA).

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